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The Effects of School and Principal Factors on Principal Leadership: An Analysis of TALIS Data for Turkey, Bulgaria, Italy, Hungary, Mexico, Norway and Brazil

Mustafa Ozmusul

Ph.D. in Education, Harran University, Faculty of Education, Turkey

Abstract: The purpose of this study was to analysis the school and principal factors affect principal leadership in Turkey, Bulgaria, Italy, Hungary, Mexico, Norway and Brazil according to TALIS (Teaching and Learning International Survey) data. Among countries with above TALIS average principals score in bureaucratic management were selected to the study. As the dependent variable principal leadership according to the perceptions of teachers was set from teacher questionnaire; and the school and principal independent variables were set from principal questionnaire. The analysis conducted in the study was performed at ISCED Level 2 Sample Schools which number varied from about 200 to 400. In the study, multiple regression analysis method was used separately to determine the effects of school and principal factors on principal leadership for each country. The results of this study indicated that the significant effect of school and principal factors on principal leadership varied from country to country.

Key words: School, principal, leadership, effect, TALIS.

INTRODUCTION

Nowadays, widespread interest in educational leadership occurs as it is one of the vital issues that the quality of leadership contributes significantly to the school and student outcomes (Bush, 2007). Principal leadership can lead the school to a vision, effect the organization members' commitment and engagement for achieving school goals; and also it can enhance school atmosphere in which all the stakeholders learn, the motivation, individualized consideration, innovative climate, effective implementation of technology, school sustainability, intellectual stimulation, personal efficacy capacity, team trust, workplace relationships, academic performance and job satisfaction (Bush, 2007; Balyer & Özcan, 2012; Darling-Hammond, LaPointe, & Meyerson, 2009; Hoerr, 2005; Patterson & Kelleher, 2005; Haris & Lambert, 2003; Kadji-Beltran, Zachariou & Stevenson, 2012; Afshari, Bakar, Luan & Siraj, 2012; Shen & Chen, 2007; Li & Hung, 2009; Ugurlu & Ustuner, 2011).

School leaders are those persons having various roles at the school who fulfill the core functions as *providing direction* and *exercising influence* so as to achieve the goals established for the school. Additionally, research-based conclusions upon the successful school leadership can be explained with five claims as follows (Leithwood & Riehl, 2003):

- Leadership has significant effects on student learning, second only to the effects of curriculum and teachers' instruction.
- Currently, administrators and teacher leaders provide most of the leadership in schools, but other potential source of leadership exist.
- A core set of leadership practices for the "basics" of successful leadership and are valuable in almost all educational contexts.
- Successful school leaders respond productively to challenges and opportunities created by the accountability-oriented policy context in which they work.
- Successful school leaders respond productively to the opportunities and challenges of educating diverse groups of students.

On the other hand, the major differences among the countries in terms of educational context make impossible to suggest a comprehensive model that would explain the success of failure endeavors and be applicable in all countries (Ercetin & Maya, 2010). However, since the schools, as one of the complex organizations, involve socially many, subtle and dynamic complex connections among members, the principal leadership becomes a complex phenomenon (Southworth, 2004).

The Nature of Principal Leadership:

A concrete explanation for leadership, similar to other complex human activities, seems difficult (Leithwood & Riehl, 2003). Educational leadership seems a concept which is characterized by multitude theories and models (Grobler, Bisschoff & Beeka, 2012). Leadership does not occur in a vacuum (Porter & McLaughlin, 2006). Leadership does not occur in a one-way which means leaders lead and followers follow. It seems fundamentally complex relationship between leaders and their constituents (Lane & Land, 1994). In

Corresponding Author: Mustafa Ozmusul, Ph.D. in Education, Harran University, Faculty of Education, Turkey
E-mail: mustafaozmusul@yahoo.com

parallel, it is a process of social construction through which certain understandings of leadership come about and are given privileged ontology (Uhl-Bien, 2006).

For strong leadership there is no one formula, no certain policy, no set of procedures that will always work (Hoerr, 2005). Although a considerable amount of research has been done understanding the school leadership as a phenomenon still remains a contested terrain (Eacott, 2012). In this sense, principal leadership is a complex phenomenon and affected many factors (Grober, Bisschoff & Beeka, 2012; O'Brien, Murphy & Draper, 2008).

Context and Leadership:

The theories of educational leadership have been widely disseminated by Western cultural and intellectual frameworks and have ignored a range of other frameworks (Hallinger & Leithwood, 1998). Implementing the Western ideology and practices of leadership without contextualizing it to the culture can bring discord between the led and leader (Pheko & Linchwe, 2008).

The school leaders' lives are far from routine and are characterized by paradox which means valuing compliance and conformity in a innovative world, seeking stability in a destabilized world, and operating individualistically in a collective paradigm (Stott & Tin, 2000). Clarke & Wildy (2004) argue that leadership is context bound and emerges from human interactions and negotiations. Requirements for effective leadership differ greatly in different situations facing different challenges vary from one school to another school (Lane & Land, 1994). Despite the context which means the school as an organization is recognized as considerable to leadership, little attention has been devoted to it in school leadership research (Southworth, 2004)

Grober, Bisschoff & Beeka (2012) revealed a holistic and dynamic view that school leadership involved seven dimensions which were contextualized as *the creation of a professionally inviting culture*; *effective communication*; *an ethical foundation; a vision of excellence; empowerment of followers; personal mastery;* and *authentic collaboration.*

One of the issues of which the expectations mentioned earlier paragraphs to the school principal reveals that which the factors affect principal leadership. Enlightening this issue can help to understand how to develop the school leadership and what policies should be made.

A review of studies regarding school and principal factors affecting principal leadership showed that there were a broad variety of different theoretical approaches to explain the complexities of these factors.

School Factors and Leadership:

A considerable factor that determines successful leadership is the comprehending the various complex contexts which change over time in which leaders perform. In other words, *schools' performance levels, improvement trajectories, staffs' development needs, schools' cultures* and the communities the schools serve should be taken into consideration by the school leaders (Southworth, 2004; Polat, 2012).

Gronn (2003) explains three considerable emerging trends which are likely to shape the practice of school leadership. These are as follows:

- Designer-leadership as systemic in origin and part of the wider framework of school policy which means the method of producing leaders according to design specifications
- Distributed practice as structural factor which means interpreted individual role boundaries, and the exploitation of informal workplace interdependencies in achieving tasks
- Cultural factor, and manifests itself both institutionally and systematically which means emanating from a reappraisal and redefinition of those traditional employee commitments which comprise part of what it means to be a good organizational citizen

Leithwood (2005) explained some internal and external factors stimulating successful leadership practices. These are as follows: *on-the-job learning, professional development experiences, socialization processes* and *individual traits.*

There have been increasing calls in the literature for paying more attention to the role of the organizational context as a significant factor affecting leadership. Organizational context seems a dependent variable of leadership (eg., a leader can change the structure) as well as an independent variable influencing leadership (Porter & McLaughlin, 2006).

Leadership occurs in a societal context and is not influenced only by the leaders' personal characteristics and situational/contingency factors, but also by the institutional environment of organizations (as well as influencing). In parallel, a complex relationship exists between leadership and its institutional context (Currie, Lockett & Suhomlinova, 2009; Silman, Ozmatyatli, Birol & Caglar, 2012). Porter & McLaughlin (2006) investigated the organizational context affecting leaders' behavior and their effectiveness, and presented some major components of organizational context as follows: *culture/climate, goals/purposes, people/composition, processes, state/condition, structure,* and *time.* Dimmock & Walker (2002) revealed out that seven dimensions regarding societal culture can affect school leadership as follows: *power-distributed/power-concentrated, group-oriented/self-oriented, consideration/aggression, proactivism/fatalism, generative/replicative, limited relationship/holistic relationship,* and *male influence/female influence.*

Leithwood (2005) described some potential external antecedents which were plausible influences on the emergence of successful leadership as follows: *level of schooling* (e.g. elementary vs middle), *school size*, *location* (e.g. urban, rural), *status of school* (e.g. "School Under Registration Review," in US), *type* (government vs catholic).

Cravens, Goldring & Peñaloza (2009) compared the roles of principals at charter, magnet, private, and traditional public schools; and they revealed that organizational arrangements of schools might influence on school leadership. Staples (2005) compared leadership roles of public and private elementary school principals in terms of policy initiatives associated with the accountability movement of federal and state policy reforms. According to this research while there were few significant differences at the instructional leadership criteria between public and private school, however there were considerable significant differences at the managerial leadership criteria among them. In turn, the research revealed that a significant number of public school principals divided considerable time on the managerial leadership behaviors of *monitoring student progress, supervising teaching,* and *managing curriculum.* Izgar (2008) found that there was a significant difference between principal leadership behavior and the type of school at which they were. Yu (2009) examined leadership qualities among private school principals in Singapore, and emphasized that financial goal ranked top above all other goals set by the private school principals.

Clarke & Wildy (2004) focused on small school leadership in terms of location of schools and work of leader. And they argued that the work of principal of the small school was complex. Lester (2010) concluded that leadership in rural school might not similar to urban leadership; and revealed that the ability of individuals to build relationships was a definitive factor in determining the success or failure of school leaders in remote rural schools. Southworth (2004) focused on leadership in terms of school size as small, medium-sized and large primary schools. Larger schools may entail certain leadership tasks in terms of classroom observations, more challenging (Goff *et al*., 2012). The study conducted by (Şahin, 2006) revealed that the principals of smaller schools have been perceived to be more transformational leaders than those of bigger schools.

Rogers (2011) explained that *total quality management, knowledge management* and *organizational learning* approaches could influence school leadership. Kabayiza (2012) outlined that decentralization of decision-making to schools could impact on school leadership. Cowie & McKinney (2007) made an evaluation on the influence of performance indicators on school leadership. Abbott *et al*. (2010) explored that collaborative learning teams positively influenced school leadership through strengthening principals'instructional leadership, and distributing leadership and instructional decision-making throughout the school.

Nor Shamsuri (2002) analyzed the effect of school climate on leadership and revealed that there was a positive relationship between the school climate and the supportive, participative and success orientated styles of leadership. Brown (2005) explained that racial, cultural, and ethnic diversity in schooling could impact on leadership. Goff *et al*. (2012) investigated that to what extent the differences in teacher characteristics and preferences influence school principal instructional leadership practices across schools.

Goff, Mavrogordato & Goldring (2012) selected some control variables as the most important contextual factors that may influence school leadership. These are as follows: *The student-to-teacher ratio, percent of students receiving free or reduced lunch (% FRL), percent of white students*, *school level* (elementary or middle school), and *school size (enrollment)*

With regard to the view of teachers, school structures have an impact on the way school principals lead (Pheko & Linchwe, 2008). Hallinger & Leithwood (1998) outlined a rationale and framework for the cross-cultural study of educational leadership. Persson, Andersson & Lindström (2004) evaluated successful leadership in different school cultures as named *coercive, career* and *knowledge* in Sweden, and concluded that principals building alliances around their school's distinct culture are one of the mechanisms that create the success. Stott & Tin (2000) investigated the cultural imperatives which shaped the working patterns and lives of school principals. Pheko & Linchwe (2008) concluded that preparation for school leaders in Botswana should take into consideration the culture since the school principals did not find themselves isolated as a result of their position but should cooperate with teachers.

Lee, Louis & Anderson (2012) investigated that how district data use might influence school leadership.

Principal Factors and Leadership:

Ensuring successful change in the organization in terms of the effective leadership practice entails considering the following elements: *vision, values*, *strategy*, *empowerment and motivation* and *inspiration* (Gill, 2002). A considerable amount of study has focused on the influence of values affecting school leadership. Some as follows: Begley (2000); Haydon (2007); Campbell (1999); Baig (2011) focused on personal values and ethics as influences on leadership practices. Personal values can play significant role in shaping school principal's attention and behavior (Hallinger & Leithwood, 1998). The efforts toward improving the school leadership can be assumed as follows: *standards, pre-service and recruitment, licensure, evaluation, in-service,* and *the conditions in which principals work* (Augustine, Gonzalez, Ikemoto, Russell & Zellman, 2009)

Moos & Johansson (2009) observed some prominent characteristics of successful school principal leadership according to their international findings as follows: *commitment to the job, being deeply interested in other people, be they teachers or other staff, students and external stakeholders, building trust,* and *being effective communicator*. Also, Leithwood (2005) determined that successful principal leaders were skilled communicators according to some countries reports.

Borden (2011) indicated some characteristics regarding principal leadership as follows:

- Better prepared, more experienced principals are viewed more favourably by teachers;
- Student achievement is higher at schools where principals are available to take part in efforts to improve instruction than at schools where principals are not available, due to teaching responsibilities;
- and higher levels of student achievement at schools where principals are available to improve instruction are associated with lower student grade repetition rates.

Eacott (2010) focused on the leader characteristics of tenure (as measured by time in years in their current substantive position) and functional track (referring to the time in years spent at different levels of the organizational hierarchy) in terms of strategic role of educational leader. And he (2010) revealed out that there was a sufficient evidence to propose the possibility that the demographic variables of tenure and functional track, both crucial factors in the contemporary and immediate future staffing contexts of many western education systems, had a moderating effect on the enactment of the strategic role of principals. The study conducted by Şahin (2006) revealed that the principals worked for longer periods of time in own schools were perceived to be more positive in transformational and transactional leadership. Notman & Henry (2011) outlined six personnel characteristics of successful leaders as follows: *previous life experiences; passion for education; pride and self-belief in school and community; work ethic; resiliency levels;* and *portraying the human face of leadership.* Notman (2012) also revealed that principals' physical, mental and intellectual well-being; levels of resiliency; and critical self-reflection intrapersonal factors impacted positively on their leadership behaviors.

In addition, Leithwood (2005) explained that principals' age, gender, years of experience and education were potential internal antecedents in some country reports.

TALIS (*Teaching *and Learning International Survey):

TALIS investigates teachers' professional development; teacher beliefs, attitudes and practices; teacher appraisal and feedback; and also school leadership in lower secondary education in both public and private sectors in the 23 participating countries. In parallel, TALIS presents robust international indicators, policy-relevant data and analysis on the following key issues: *the role and functioning of school leadership; how teachers' work is appraised and the feedback they receive; teachers' professional development;* and *teachers' beliefs and attitudes about teaching and their pedagogical practices* (TALIS, 2009).

Moreover, the TALIS provides broad information about the management behaviour and style of principals in secondary schools on to answer the following questions (OECD, 2009):

- In an era of accountability and devolution of authority in education, what are the salient dimensions of the management behaviour and style of secondary school principals?
- To what degree have recent trends in school leadership penetrated countries' educational systems?
- How are school leadership styles associated with the management of teachers, across the three main areas of TALIS: *i)* teachers' professional development; *ii)* teachers' practices, beliefs and attitudes; and *iii)* teachers' appraisal and feedback?

In addition, TALIS describes two main leadership style named as Instructional leadership style (including *management-school goals index; instructional management index*; and *direct supervision of instruction in the school index*) and Administrative leadership style (including *accountable management index;* and *bureaucratic management index*) according to the analysis of principals' responses (OECD, 2009). The TALIS findings reveal two common assumptions as follows: - Instructional leadership paradigm is not necessarily an alternative to administrative leadership (effective principal can indicate both styles). – Giving responsibilities to schools does not necessarily change the leadership style (Schleicher, 2011).

Furthermore, TALIS examined the relation between management styles and five aspects of teachers' work as follows: *beliefs about the nature of teaching and learning; teachers' classroom practices; teachers' professional activities; teachers' classroom environment and school climate;* and *teachers' attitudes towards their job.* TALIS also investigated the links between school management and teachers' appraisal and feedback, and the links with teachers' professional development (OECD, 2009).

Method:

In this study, it was aimed that to analysis the effects of the school and principal factors (independent variables) on principal leadership (dependent variable). For that, as the research method Multiple Regression Analysis (MRA) by enter method was used separately to determine those effects for each country.

Population and Sample:

Among countries with above TALIS 2008 average (0.00) principals score in bureaucratic management (Turkey 1.04; Bulgaria 0.87; Italy 0.60; Hungary 0.50; Mexico 0. 47; Norway 0.31; Brazil 0.28) were selected to the study. *Index of bureaucratic management* established by the TALIS consisted of following items derived from principal responses: *It is important for the school that I see to it that everyone sticks to the rules; It is important for the school that I check for mistakes and errors in administrative procedures and reports; An important part of my job is to resolve problems with the timetable and/or lesson planning; An important part of my job is to create an orderly atmosphere in the school;* and *I stimulate a task-oriented atmosphere in this school.*

In this study, TALIS 2008 sample was used for the countries selected to the study. The sample indicated on the Table 1 consisted of ISCED Level 2 Schools which number varied from about 200 to 400.

Table 1: Population and Sample.

The countries	*School Population*	*Sample schools*	*Teacher survey population*	*Expected number of sampled teachers*
Brazil	52, 809	400	832 144	7 161
Hungary	2,852	200	46 491	3618
Italy	7 509	300	189 346	6 000
Mexico	14 184	200	283 906	4164
Norway	1090	200	21570	4875
Turkey	12 477	200	148 987	4105
Bulgaria	2300	203	30 500	4133

Data Collection and Analysis:

School factors used in the study were as follows: location; school type; student- teacher ratio; student - personnel for pedagogical support ratio; student- school administrative/management personnel ratio; considering students' academic record for admission to the school; lack of school resource; negative school climate. School Principal factors used in the study were as follows: age; education level; total years working as principal; years working as principal at current school; years spent as teacher before becoming principal; percentage time on the internal administrative tasks; percentage time on the curriculum and teaching-related tasks; job perception of school principals for developing school.

In the study all the independent variables consisted of the regression equation. But some modifications were made for the some countries as follows: school type was excluded from the model for Bulgaria, Italy and Norway; the educational level of school principal was excluded from the model for Italy and Brazil; years spent as teacher before becoming principal was excluded from the model for Italy.

When interpreting the data revealed in this study the multiple R-square was used to what extent the models established in the study explained the variance of school principal leadership; beta coefficients were used to determine the decrement or gain of the points on the principal leadership for every additional point on the independent variables; in addition, partial correlation coefficients were used to determine to what extent the principal leadership was correlated uniquely with independent variables when the others were treated as covariates.

The category and non-continues *(location, school type, age of school principal, educational level of principal, total years working as principal, years working as principal at current school,* and *years spent as teacher before becoming principal)* variables were converted to dummy variables, as shown on the Table 2.
When considering the correlation efficient " 0, .1, .2, and .3." were defined as *low*; ".4, .5, and .6." were defined as *medium;* and ".7, .8, and .9." were defined as *high* correlation.

The Instruments:

The TALIS principal and teacher questionnaires were used as instruments of the study. Also for determining which variables would be used in the study, those questionnaires were utilized.

Table 2: Independent Variables.

Variables	*Turkey*	*Bulgaria*	*Italy*	*Hungary*	*Mexico*	*Norway*	*Brazil*
LOC (location)	1= fewer than 100 000 people 0= more than 100 000	1= fewer than 15 000 people 0= more than 100 000	1= fewer than 15 000 people 0= more than 100 000	1= fewer than 15 000 people 0= more than 100 000	1= fewer than 15 000 people 0= more than 100 000	1= fewer than 3 000 people 0= more than 3 000	1= fewer than 15 000 people 0= more than 100 000
SCHTYPE (school type)	1= private 0= public	*	*	1= private 0= public	1= private 0= public	*	1= private 0= public
RATIOTEACH	Numbers of Teachers, irrespective of the grades or ages they teach /Number of students						
RATIOPEDA	Personnel for pedagogical support, irrespective of the grades or ages they support / Number of students						
RATIOMNG	School administrative or management personnel / Number of students						
RESOURCE	Not at all (1); Very little (2); To some extent (3); A lot (4) School's capacity to provide instruction hindered by a) A lack of qualified teachers b) A lack of laboratory technicians						

	c) A lack of instructional support personnel d) A lack of other support personnel e) Shortage or inadequacy of instructional materials (e.g. textbooks) f) Shortage or inadequacy of computers for instruction g) Shortage or inadequacy of other equipment h) Shortage or inadequacy of library materials						
CLIMATE	Not at all (1); Very little (2); To some extent (3); A lot (4) The learning of students hindered by a) Arriving late at school b) Absenteeism (i.e. unjustified absences) c) Classroom disturbance d) Cheating e) Profanity/Swearing f) Vandalism g) Theft h) Intimidation or verbal abuse of other students (or other forms of bullying) i) Physical injury to other students j) Intimidation or verbal abuse of teachers or staff k) Use/possession of drugs and/or alcohol						
ACDSELECT	Considering Students' academic record (including placement tests) for admission to the school Not considered (1) Considered (2) High priority (3) Prerequisite (4)						
AGE	1=under 50 0= 50+	1=under 40 0= 40+	1=under 50 0= 50+	1=under 50 0= 50+	1=under 50 0= 50+	1=under 50 0= 50+	1=under 40 0= 40+
EDU (education level)	1= bachelor degree 0= ISCED LEVEL 5B	1= Master degree or ISCED LEVEL 6 0= Bachelor Degree	*	1= Master degree or ISCED LEVEL 6 0= Bachelor Degree	1= Master degree or ISCED LEVEL 6 0= below Master degree	1= Master degree or ISCED LEVEL 6 0= Bachelor Degree	*
TEXP Total years working as principal	1= Less than 10 years 0= More than 10 years	1= less than 5 years 0= more than 5 years	1= Less than 10 years 0= More than 10 years	1= Less than 10 years 0= More than 10 years	1= less than 5 years 0= more than 5 years	1= less than 5 years 0= more than 5 years	1= less than 5 years 0= more than 5 years

Table 2: (continued) Independent Variables.

SCEXP *years working as principal at current school*	*1= less than 5 years* *0= more than 5 years*	*1= less than 5 years* *0= more than 5 years*	*1= less than 5 years* *0= more than 5 years*	*1= Less than 10 years* *0= More than 10 years*	*1= less than 5 years* *0= more than 5 years*	*1= less than 5 years* *0= more than 5 years*	1= less than 5 years 0= more than 5 years
TCEXP years spent as teacher before becoming principal	1= Less than 10 years 0= More than 10 years	1= less than 5 years 0= more than 5 years	*	1= Less than 10 years 0= More than 10 years	1= less than 5 years 0= more than 5 years	1= less than 5 years 0= more than 5 years	1= less than 5 years 0= more than 5 years
PERADMIN	Percentage time on the Internal administrative tasks (including human resource/personnel issues, regulations, reports, school budget, timetable)						
PERCUR	Percentage time on the Curriculum and teaching-related tasks (including teaching, lesson preparation, classroom observations, mentoring teachers)						
Job_Prcp (Job Perception of school principals for developing school)	Strongly Disagree (1) Disagree (2) Agree (3) Strongly (4) Agree (5) - A main part of my job is to ensure that the teaching skills of the staff are always improving. - An important part of my job is to ensure that teachers are held accountable for the attainment of the school's goals. - An important part of my job is to present new ideas to the parents in a convincing way. - In this school, we work on goals and/or a school development plan. - I define goals to be accomplished by the staff of this school.						

* The variable was not applied because the results were statistically not significant.

Table 3: Dependent variable.

The variable	*Items*
LEADERSHIP (Teacher perceptions)	Never (1) Seldom (2) Quite often (3) Very often (4) - In meetings, the principal discusses educational goals with teachers. - The principal ensures that teachers work according to the school's educational goals. - The principal or someone else in the management team observes teaching in classes. - The principal gives teachers suggestions as to how they can improve their teaching. - When a teacher has problems in his/her classroom, the principal takes the initiative to discuss the matter. - The principal ensures that teachers are informed about possibilities for updating their knowledge and skills. - The principal compliments teachers for special - effort or accomplishments. - In this school, the principal and teachers work on a school development plan. - The principal defines goals to be accomplished by the staff of this school. - In this school, the principal and teachers act to ensure that education quality issues are a collective responsibility.

Regression Models Established for the Countries:

$LEADERSHIP_{Turkey;Hungary;Mexico}$= a + β_1LOC+ β_2SCHTYPE + β_3RATIOTEACH + β_4RATIOPEDA + β_5RATIOMNG + β_6RESOURCE + β_7CLIMATE + β_8ACDSELECT+ β_9AGE+ β_{10}EDU + β_{11}TEXP + β_{12}SCEXP + β_{13}TCEXP + β_{14}PERADMIN + β_{15}PERCUR + β_{16}Job_Prcp

$LEADERSHIP_{Bulgaria;Norway}$= a + β_1LOC+ β_2RATIOTEACH + β_3RATIOPEDA + β_4RATIOMNG + β_5RESOURCE + β_6CLIMATE + β_7ACDSELECT+ β_8AGE+ β_9EDU + β_{10}TEXP + β_{11}SCEXP + β_{12}TCEXP + β_{13}PERADMIN + β_{14}PERCUR + β_{15}Job_Prcp

$LEADERSHIP_{Italy}$= a + β_1LOC+ β_2RATIOTEACH + β_3RATIOPEDA + β_4RATIOMNG + β_5RESOURCE + β_6CLIMATE + β_7ACDSELECT+ β_8AGE + β_9TEXP + β_{10}SCEXP + β_{11}PERADMIN + β_{12}PERCUR + β_{13}Job_Prcp

$LEADERSHIP_{Brazil}$= a + β_1LOC+ β_2SCHTYPE + β_3RATIOTEACH + β_4RATIOPEDA + β_5RATIOMNG + β_6RESOURCE + β_7CLIMATE + β_8ACDSELECT+ β_9AGE + β_{10}TEXP + β_{11}SCEXP + β_{12}TCEXP + β_{13}PERADMIN + β_{14}PERCUR + β_{15}Job_Prcp

Findings:
Turkey:

Table 4: Multiple Regression Analysis Results for Turkey.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	2,501	,255		9,809	,000		
LOC	,001	,049	,001	,019	,985	-,050	,002
SCHTYPE	,448	,095	,626	4,705	,000	,548	,406
RATIOTEACH	-1,699	1,132	-,201	-1,501	,136	,385	-,140
RATIOPEDA	2,049	1,002	,202	2,044	,043	,178	,190
RATIOMNG	-1,448	2,615	-,055	-,554	,581	,261	-,052
ACDSELECT	,005	,034	,012	,136	,892	,258	,013
RESOURCE	,028	,037	,074	,749	,456	-,310	,071
CLIMATE	-,106	,034	-,282	-3,165	,002	-,388	-,287
AGE	,117	,066	,184	1,768	,080	,119	,165
EDU	-,058	,059	-,088	-,982	,328	,059	-,092
TEXP	,038	,060	,060	,632	,528	,224	,060
SCEXP	,066	,055	,099	1,217	,226	,166	,114
TCEXP	-,045	,052	-,071	-,867	,388	-,101	-,082
PERADMIN	-,001	,002	-,068	-,856	,394	-,153	-,081
PERCUR	-,004	,002	-,130	-1,516	,132	,171	-,142
Job_Prcp	,084	,068	,096	1,236	,219	,185	,116
Model summary: R= ,660 R^2= ,436 $F_{(16-112)}$= 5,411 p= ,000							

The regression equation comprising all the explanatory variables for Turkey as follows:

$LEADERSHIP_{Turkey}$= 2,501 + 0,001*LOC* + 0,448*SCHTYPE* - 1,699*RATIOTEACH* + 2,049*RATIOPEDA* - 1,448*RATIOMNG* + 0,028*RESOURCE* - 0,106*CLIMATE* + 0,005*ACDSELECT* +0,117*AGE* - 0,058*EDU* + 0,038*TEXP* + 0,066*SCEXP* - 0,045*TCEXP* -0,001*PERADMIN* - 0,004*PERCUR* + 0,084*Job_Prcp*

The prediction model established for $LEADERSHIP_{Turkey}$ was statistically significant, $F_{(16-112)}$= 5,411; *p*=<.001, and accounted for approximately 43% of the variance of principal leadership (R^2= ,436). Among the independent variables the *school type*, *student-personnel for pedagogical support ratio* and *negative school climate* were statistically significant (p<0.05). In this sense, school type is associated with a partial regression coefficient of 0,448 and means that for every additional point on the *school type* (through private) measure, it can be predicted that a gain of 0,448 points on the principal leadership measure. Additionally, for every additional point on the *student-personnel for pedagogical support ratio measure, it can be predicted that a gain of* 2,049 points on the principal leadership. On the other hand, for every additional point on the *negative school climate* (through negative) measure, it can be predicted that a decrement of 0,106 points on the *principal leadership* measure. When the other variables were treated as covariates *principal leadership* was: modestly and positively (r=0,40; p<0.05) correlated with school type; lowly and positively (r=0,19; p<0.05) correlated with *student-personnel for pedagogical support ratio;* and lowly and negatively (r=-0,287; p<0.05) correlated with *negative school climate.*

Bulgaria:

Table 5: Multiple Regression Analysis Results for Bulgaria.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	2,683	,223		12,032	,000		
LOC	,000	,035	,001	,010	,992	-,042	,001
RatioTeach	-2,095	,613	-,301	-3,420	,001	-,229	-,263
RatioPeda	,307	1,059	,023	,290	,772	-,015	,023
RatioMng	,576	1,034	,046	,557	,579	-,022	,044
ACDSELECT	-,009	,014	-,059	-,693	,490	-,035	-,055
CLIMATE	,031	,041	,068	,744	,458	,061	,059
RESOURCE	-,016	,026	-,051	-,610	,543	-,046	-,048
AGE	,129	,076	,146	1,697	,092	,031	,134
EDU	,329	,119	,231	2,772	,006	,153	,215
TEXP	-,095	,066	-,218	-1,441	,152	-,086	-,114
SCEXP	,060	,061	,146	,981	,328	-,048	,078
TCEXP	-,050	,040	-,097	-1,248	,214	-,026	-,099
PERADMIN	-,001	,001	-,090	-,957	,340	-,056	-,076
PERCUR	,001	,001	,069	,678	,499	-,009	,054
Job_Prcp	,091	,038	,183	2,411	,017	,140	,188
Model summary: R= ,400			R^2= ,160	$F_{(15-158)}$= 2,007	p= ,018		

The regression equation comprising all the explanatory variables for Turkey as follows:

$LEADERSHIP_{Bulgaria}$ = 2,683 + 0,000*LOC* - 2,095*RATIOTEACH* + 0,307*RATIOPEDA* + 0,576*RATIOMNG* - 0,016*RESOURCE* + 0,031*CLIMATE* - 0,009*ACDSELECT* + 0,129*AGE* +0,329 *EDU* - 0,095*TEXP* + 0,060*SCEXP* - 0,050*TCEXP* - 0,001*PERADMIN* +0,001*PERCUR* + 0,091*Job_Prcp*

The prediction model established for $LEADERSHIP_{Bulgaria}$ was statistically significant, $F_{(15-158)}$= 2,007; *p*=<.05, and accounted for approximately 16% of the variance of principal leadership (R^2= 0,160). Among the independent variables the *student-teacher ratio*, *educational level of school principal* and *job perception of school principal for developing school* were statistically significant (p<0.05). In this sense, *student-teacher ratio* is associated with a partial regression coefficient of -2,095 and means that for every additional point on the *student-teacher ratio* measure, it can be predicted that a decrement of 2,095 points on the principal leadership measure. Additionally, for every additional point on the *educational level of school principal* measure, *it can be predicted that a gain of* 0,329 points on the principal leadership. On the other hand, for every additional point on the *job perception of school principal for developing school*, it can be predicted that a gain of 0,091 points on the *principal leadership* measure. When the other variables were treated as covariates *principal leadership* was: lowly and negatively (r=-0,26; p<0.05) correlated with *student-teacher ratio*; lowly and positively (r=0,21; p<0.05) correlated with *educational level of school;* and lowly and positively (r=0,18; p<0.05) correlated with *job perception of school principal for developing school.*

Italy:

Table 6: Multiple Regression Analysis Results for Italy.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	2,444	,219		11,146	,000		
RatioTeach	-,068	,906	-,006	-,075	,941	,071	-,006
RatioPeda	-,295	2,287	-,009	-,129	,898	-,017	-,009
RatioMng	2,050	1,884	,090	1,088	,278	,088	,080
ACDSELECT	,085	,034	,180	2,547	,012	,212	,185
RESOURCE	,056	,035	,121	1,596	,112	,106	,117
CLIMATE	-,041	,034	-,093	-1,227	,221	-,037	-,090
LOC	-,038	,037	-,074	-1,033	,303	-,036	-,076
AGE2	,128	,050	,184	2,560	,011	,163	,185
TEXP2	,069	,045	,135	1,550	,123	,055	,114
SCEXP	-,121	,048	-,223	-2,512	,013	-,124	-,182
PERADMIN	-,001	,002	-,027	-,334	,738	-,061	-,025
PERCUR	,001	,002	,063	,786	,433	,116	,058
Job_Prcp	,023	,050	,033	,472	,637	,056	,035
Model summary: R= ,375			R^2= ,141	$F_{(13-184)}$= 2,318	p= ,007		

The regression equation comprising all the explanatory variables for Italy as follows:

$LEADERSHIP_{Italy}$= 2,444 - 0,038*LOC* - 0,068*RATIOTEACH* - 0,295*RATIOPEDA* + 2,050*RATIOMNG* + 0,056*RESOURCE* - 0,041*CLIMATE* + 0,085*ACDSELECT* + 0,128*AGE* + 0,069*TEXP* - 0,121*SCEXP* - 0,001*PERADMIN* + 0,001*PERCUR* + 0,023*Job_Prcp*

The prediction model established for $LEADERSHIP_{Italy}$ was statistically significant, $F_{(13\text{-}184)}$= 2,318; *p*=<.05, and accounted for approximately 14% of the variance of principal leadership (R^2= 0,141). Among the independent variables the *considering students' academic record for admission to the school, age of school principal*, and *years working as principal at current school* were statistically significant (p<0.05). In this sense, *considering students' academic record for admission to the school* is associated with a partial regression coefficient of ,085 and means that for every additional point on the *considering students' academic record for admission to the school* measure, it can be predicted that a gain of 0,085 points on the principal leadership measure. Additionally, for every additional point on the *age of school principal* measure, *it can be predicted that a gain of 0*,128 points on the principal leadership. On the other hand, for every additional point on the *years working as principal at current school*, it can be predicted that a decrement of 0,121 points on the *principal leadership* measure. When the other variables were treated as covariates *principal leadership* was: lowly and positively (r=0,185; p<0.05) correlated with *considering students' academic record for admission to the school*; lowly and positively (r=0,185; p<0.05) correlated with *age of school principal;* and lowly and negatively (r=-0,182; p<0.05) correlated with *years working as principal at current school*.

Hungary:

The regression equation comprising all the explanatory variables for Hungary as follows:

$LEADERSHIP_{Hungary}$= 2,588 - 0,031*LOC* - 0,034*SCHTYPE* + 0,867*RATIOTEACH* +1,132 *RATIOPEDA* - 2,712*RATIOMNG* - 0,043*RESOURCE* - 0,135*CLIMATE* - 0,043*ACDSELECT* + 0,077*AGE* - 0,019*EDU* + 0,102*TEXP* - 0,139*SCEXP* - 0,062*TCEXP* + 0,004*PERADMIN* + 0,004*PERCUR* + 0,152*Job_Prcp*

Table 7: Multiple Regression Analysis Results for Hungary.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	2,588	,237		10,898	,000		
LOC	-,031	,039	-,062	-,787	,433	-,114	-,062
RatioTeach	,867	,771	,088	1,125	,262	,027	,089
RatioPeda	1,132	1,633	,054	,693	,489	,101	,055
RatioMng	-2,712	1,999	-,106	-1,357	,177	-,093	-,107
RESOURCE	-,043	,028	-,108	-1,499	,136	-,194	-,118
CLIMATE	-,135	,035	-,282	-3,814	,000	-,329	-,290
ACDSELECT	-,043	,022	-,148	-1,900	,059	-,081	-,149
SCHTYPE	-,034	,060	-,043	-,570	,570	,012	-,045
AGE2	,077	,039	,156	1,984	,049	,060	,156
EDU	-,019	,037	-,037	-,510	,611	-,071	-,041
TEXP2	,102	,079	,206	1,299	,196	,029	,103
SCEXP2	-,139	,079	-,273	-1,762	,080	-,007	-,139
TCEXP2	-,062	,045	-,105	-1,359	,176	-,162	-,108
Job_Prcp	,152	,054	,196	2,823	,005	,233	,219
PERADMIN	,004	,001	,236	3,012	,003	,211	,233
PERCUR	,004	,002	,139	1,808	,073	,069	,142
Model summary: R= ,541			R^2= ,292		$F_{(16\text{-}158)}$= 4,080	p= ,000	

The prediction model established for $LEADERSHIP_{Hungary}$ was statistically significant, $F_{(16\text{-}158)}$= 4,080; *p*=<.05, and accounted for approximately 29% of the variance of principal leadership (R^2= 0,292). Among the independent variables, while the *negative school climate, age of school principal, job perception of school principals for developing school, percentage time on the internal administrative tasks* were statistically significant at p<0.05, the *considering students' academic record for admission to the school* was statistically significant at p=0,059 level. In this sense, *negative school climate* is associated with a partial regression coefficient of - 0,135 and means that for every additional point on the *negative school climate* measure, it can be

predicted that a decrement of 0,135 points on the principal leadership measure. Secondly, for every additional point on the *age of school principal* measure, *it can be predicted that a gain of 0,*077 points on the principal leadership. Thirdly, for every additional point on the *job perception of school principal for developing school* measure, *it can be predicted that a gain of 0,*152 points on the principal leadership. Fourthly, for every additional point on the *percentage time on the internal administrative tasks* measure, *it can be predicted that a gain of 0,*004 points on the principal leadership. When the other variables were treated as covariates *principal leadership* was: lowly and negatively (r=-0,290; p<0.05) correlated with *negative school climate*; lowly and positively (r=0,156; p<0.05) correlated with *age of school principal;* lowly and positively (r=0,219; p<0.05) correlated with *job perception of school principal for developing school;* lowly and positively (r=0,233; p<0.05) correlated with *percentage time on the internal administrative tasks;* and lowly and negatively (r=-0,149; p=0.059) correlated with the *considering students' academic record for admission to the school.*

Mexico:

The regression equation comprising all the explanatory variables for Mexico as follows:

$LEADERSHIP_{Mexico}$= 1,807 - 0,027*LOC* + 0,277*SCHTYPE* - 1,153*RATIOTEACH* + 0,236*RATIOPEDA* + 1,669*RATIOMNG* + 0,080*RESOURCE* - 0,063*CLIMATE* + 0,006*ACDSELECT* + 0,203*AGE* + 0,035*EDU* + 0,090*TEXP* - 0,094*SCEXP* + 0,065*TCEXP* + 0,001*PERADMIN* + 0,004*PERCUR* + 0,170*Job_Prcp*

Table 8: Multiple Regression Analysis Results for Mexico.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	1,807	,296		6,102	,000		
AGE2	,203	,062	,279	3,252	,001	,299	,264
EDU	,035	,052	,050	,676	,500	,038	,057
TEXP	,090	,069	,125	1,293	,198	,116	,108
SCEXP	-,094	,071	-,126	-1,324	,188	-,008	-,111
PERADMIN	,001	,002	,034	,390	,697	-,156	,033
PERCUR	,004	,002	,161	1,861	,065	,245	,155
Job_Prcp	,170	,064	,206	2,643	,009	,321	,217
TCEXP	,065	,098	,051	,665	,507	,184	,056
LOC	-,027	,067	-,034	-,403	,688	,030	-,034
SCHTYPE	,277	,099	,294	2,812	,006	,371	,230
RatioTeach	-1,153	,632	-,166	-1,825	,070	,059	-,152
RatioPeda	,236	1,318	,016	,179	,858	,053	,015
RatioMng	1,669	1,744	,092	,957	,340	,152	,080
ACDSELECT	,006	,025	,018	,218	,828	,142	,018
RESOURCE	,080	,044	,177	1,825	,070	-,167	,152
CLIMATE	-,063	,036	-,145	-1,776	,078	-,070	-,148
Model summary: R= ,554			R^2= ,306		$F_{(16-141)}$= 3,894	p= ,000	

The prediction model established for $LEADERSHIP_{Mexico}$ was statistically significant, $F_{(16-141)}$=3,894; *p*=<.05, and accounted for approximately 30% of the variance of principal leadership (R^2= 0,306). Among the independent variables, *age of school principal*, *job perception of school principals for developing school* and *school type* were statistically significant at p<0.05 level. In this sense, *age of school principal* is associated with a partial regression coefficient of 0,203 and means that for every additional point on the *age of school principal* measure, it can be predicted that a gain of 0,203 points on the principal leadership measure. And for every additional point on the *school type,* it can be predicted that a gain of 0,277 points on the principal leadership measure. In addition, for every additional point on the *job perception of school principals for developing school* measure, *it can be predicted that a gain of 0,*170 points on the principal leadership. When the other variables were treated as covariates *principal leadership* was: lowly and positively (r=0,264; p<0.05) correlated with *age of school principal*; lowly and positively (r=0,217; p<0.05) correlated with *job perception of school principal for developing school* and lowly and positively (r=0,230; p<0.05) correlated with *school type.*

Norway:

$LEADERSHIP_{Norway}$= 2,124 - 0,002*LOC* + 1,422*RATIOTEACH* + 2,356*RATIOPEDA* + 0,771*RATIOMNG* - 0,024*RESOURCE* - 0,071*CLIMATE* - 0,290*ACDSELECT* - 0,003*AGE* + 0,036*EDU* - 0,017*TEXP* + 0,024*SCEXP* + 0,163*TCEXP* + 0,003*PERCUR* + 0,150*Job_Prcp*

The prediction model established for $LEADERSHIP_{Norway}$ was statistically significant, $F_{(14-121)}$=2,232; *p*=<.05, and accounted for approximately 20% of the variance of principal leadership (R^2= 0,205). Among the independent variables, *job perception of school principals for developing school* and *years spent as teacher before becoming principal* were statistically significant at p<0.05 level. In this sense, *job perception of school principals for developing school* is associated with a partial regression coefficient of 0,150 and means that for every additional point on the *job perception of school principals for developing school* measure, it can be predicted that a gain of 0,150 points on the principal leadership measure. In addition, for every additional point on the *years spent as teacher before becoming principal* measure, *it can be predicted that a gain of 0,*163 points on the principal leadership. When the other variables were treated as covariates *principal leadership* was: lowly and positively (r=0,203; p<0.05) correlated with *job perception of school principals for developing school*; and lowly and positively (r=0,181; p<0.05) correlated with *years spent as teacher before becoming principal.*

Table 3: Multiple Regression Analysis Results for Norway.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	2,124	,354		5,993	,000		
LOC2	-,002	,060	-,003	-,028	,978	,134	-,003
RatioTeach	1,422	1,165	,162	1,221	,225	,253	,110
RatioPeda	2,356	1,505	,165	1,565	,120	,264	,141
RatioMng	,771	2,597	,041	,297	,767	,242	,027
RESOURCE	-,024	,051	-,041	-,462	,645	-,040	-,042
CLIMATE	-,071	,074	-,094	-,963	,337	-,195	-,087
ACDSELECT	-,290	,226	-,116	-1,283	,202	-,069	-,116
PERCUR	,003	,002	,103	1,173	,243	,222	,106
Job_Prcp	,150	,066	,197	2,275	,025	,158	,203
TCEXP	,163	,080	,170	2,025	,045	,170	,181
AGE2	-,003	,067	-,005	-,050	,960	,014	-,005
EDU	,036	,057	,055	,626	,532	-,015	,057
TEXP	-,017	,070	-,026	-,241	,810	-,029	-,022
SCEXP	,024	,069	,041	,352	,726	,011	,032
Model summary: R= ,453			R^2= ,205	$F_{(14-121)}$= 2,232		p= ,010	

The regression equation comprising all the explanatory variables for Norway as follows:

Brazil:

Table 4: Multiple Regression Analysis Results for Brazil.

Variable	*B*	*Std. Error*	*β*	*t*	*Sig.*	*Zero-order*	*Partial*
(Constant)	3,083	,258		11,971	,000		
LOC	,037	,058	,046	,637	,525	,070	,041
SCHTYPE	,088	,079	,103	1,112	,267	,162	,071
RatioTeach	-,425	,564	-,122	-,754	,452	,052	-,048
RatioPeda	,254	1,075	,027	,236	,814	,062	,015
RatioMng	,458	1,210	,069	,379	,705	,046	,024
RESOURCE	,030	,039	,062	,753	,452	-,109	,048
CLIMATE	-,156	,047	-,234	-3,315	,001	-,271	-,206
ACDSELECT	-,009	,021	-,029	-,445	,657	,021	-,028
AGE	,070	,058	,082	1,208	,228	,050	,077
TEXP	-,123	,074	-,161	-1,668	,097	-,115	-,106
SCEXP	,104	,074	,129	1,402	,162	-,058	,089
TCEXP	,014	,059	,015	,235	,815	,062	,015
PERADMIN	,001	,002	,049	,663	,508	-,060	,042
PERCUR	,004	,002	,181	2,346	,020	,206	,148
Job_Prcp	,001	,059	,001	,024	,981	,043	,002
Model summary: R= ,353			R^2= ,125	$F_{(15-247)}$= 2,349		p= ,004	

The regression equation comprising all the explanatory variables for Brazil as follows:

$LEADERSHIP_{Brazil}$= 3,083 + 0,037*LOC* + 0,088*SCHTYPE* - 0,425*RATIOTEACH* + 0,254 *RATIOPEDA* + 0,458*RATIOMNG* + 0,030*RESOURCE* - 0,156*CLIMATE* - 0,009*ACDSELECT* + 0,070*AGE* - 0,123*TEXP* + 0,104*SCEXP* + 0,014*TCEXP* + 0,001*PERADMIN* + 0,004*PERCUR* + 0,001*Job_Prcp*

The prediction model established for $LEADERSHIP_{Brazil}$ was statistically significant, $F_{(15-247)}$= 2,349; *p*=<.05, and accounted for approximately 12% of the variance of principal leadership (R^2= 0,125). Among the independent variables, *negative school climate* and *percentage time on the curriculum and teaching-related tasks* were statistically significant at p<0.05 level. In this sense, *negative school climate* is associated with a partial regression coefficient of -0,156 and means that for every additional point on the *negative school climate* measure, it can be predicted that a decrement of 0,156 points on the principal leadership measure. On the other hand, for every additional point on the *percentage time on the curriculum and teaching-related tasks* measure, *it can be predicted that a gain of 0*,004 points on the principal leadership. When the other variables were treated as covariates *principal leadership* was: lowly and negatively (r=-0,206; p<0.05) correlated with *negative school climate*; and lowly and positively (r=0,148; p<0.05) correlated with *percentage time on the curriculum and teaching-related tasks.*

Conclusion:

The models established for the whole countries in the study were found statistically significant, and accounted approximately for Turkey 43%; for Bulgaria 16%; for Italy 14%; for Hungary 29%; for Mexico 30%; for Norway 20%; for Brazil 12% of the variance of principal leadership.

Among the independent variables the *school type* for Turkey and Mexico; *student-personnel for pedagogical support ratio* for Turkey; *negative school climate* for Turkey, Hungary and Brazil; *student-teacher ratio* for Bulgaria*; educational level of school principal* for Bulgaria*; job perception of school principal for developing school* for Bulgaria, Hungary, Mexico, Norway; *considering students' academic record for admission to the school* for Italy, Hungary; *age of school principal* for Italy, Hungary, Mexico; *years working as principal at current school* for Italy; *years spent as teacher before becoming principal* for Norway*; percentage time on the curriculum and teaching-related tasks* for Brazil; and *percentage time on the internal administrative tasks* for Hungary were estimated statistically significant.

When the other variables were treated as covariates *principal leadership* was: modestly for Turkey, lowly for Mexico and positively correlated with *school type* (private versus public); lowly and positively correlated with *student-personnel for pedagogical support ratio* for Turkey*;* lowly and negatively correlated with *negative school climate* for Turkey, Hungary and Brazil*;* lowly and negatively correlated with *student-teacher ratio* for Bulgaria; lowly and positively correlated with *educational level of school principal* (Master degree or ISCED LEVEL 6 versus Bachelor Degree) for Bulgaria; lowly and positively correlated with *job perception of school principal for developing school* for Bulgaria, Hungary, Mexico and Norway*;* lowly and positively correlated with *considering students' academic record for admission to the school* for Italy, but lowly and negatively correlated for Hungary; lowly and positively correlated with *age of school principal* (*under 50 versus 50+)* for Italy, Hungary, Mexico; lowly and negatively correlated with *years working as principal at current school (*less than 5 years versus more than 5 years) for Italy; lowly and positively correlated with *years spent as teacher before becoming principal (*less than 5 years versus more than five years) for Norway; lowly and positively correlated with *percentage time on the curriculum and teaching-related tasks* for Brazil*;* lowly and positively correlated with *percentage time on the internal administrative tasks* for Hungary.

Multiple Regression Analyses used in this study indicated that the statistically significant effects of school and principal factors on principal leadership varied from country to country. In addition, among countries with above TALIS average principals score in bureaucratic management were analyzed in this study. Therefore the results derived from the model and coefficients can be changed in the other countries.

This study has indicated that the principal leadership was a complex phenomenon and affected many factors. No doubt, this evaluation is not a new discourse. However, it can be argued that this study reveals considerable results to explain the factors behind the principal leadership from an international perspective. And also this study argues that developing principal leadership in a county should be approached mainly according to its specific factors affect the principal leadership. For that, the suggestions to develop principal leadership revealed in a country can be helpful for another country; nevertheless, it entails robust data for effect for another country. At least in this respect, it can be said that this study contributes that to understand the school leadership phenomenon and to develop principal leadership in a country.

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